②

x Taurus x D/S
ex 470
"Empire Flora"

COCHRANE & SONS
YARD Nos. 1297/8
1299-1304

PROFILE & DECKS

Hul 53089.

009570 - 009579 - 0082

PROFILE & DECK PLAN

DIMNS: 115'-0" B.P. • 27'-6" MLD. • 13'-6" MLD.

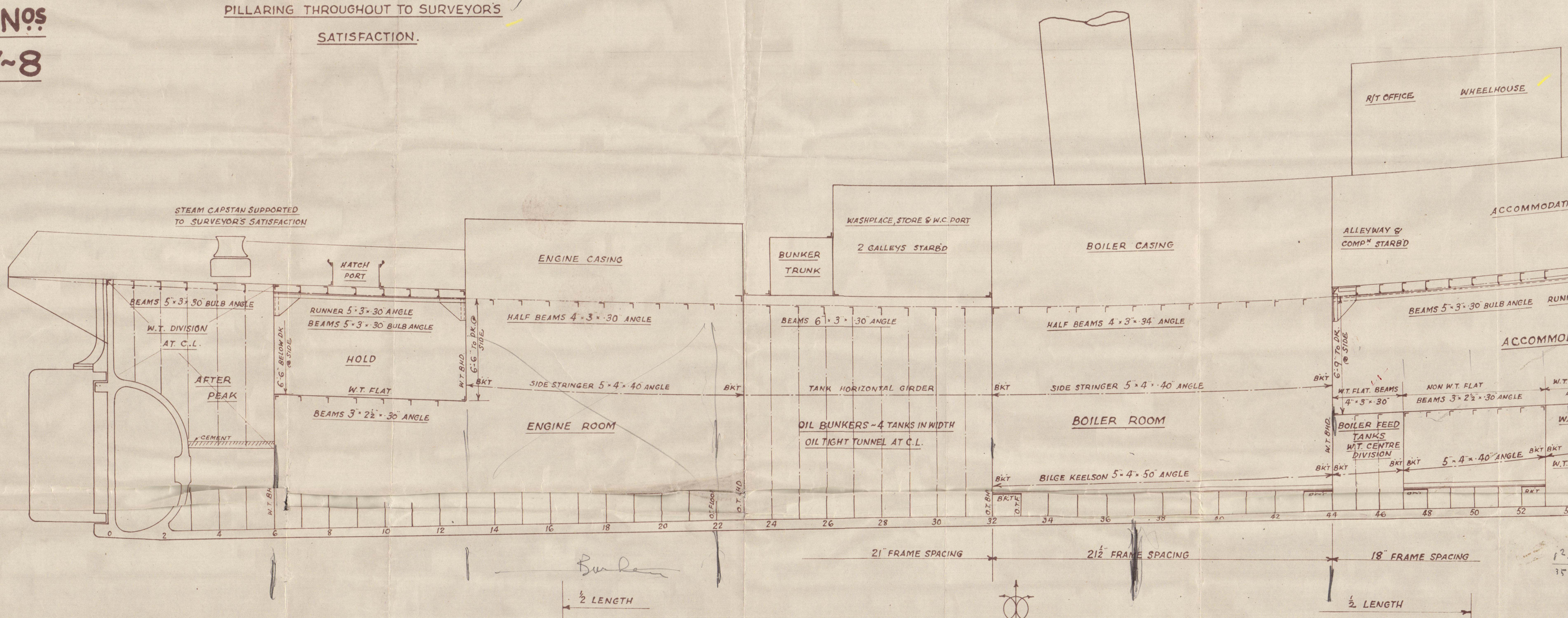
TO CLASS ✠ 100 A.I. FOR TOWING SERVICES

SCALE: ¼" = 1 FT.

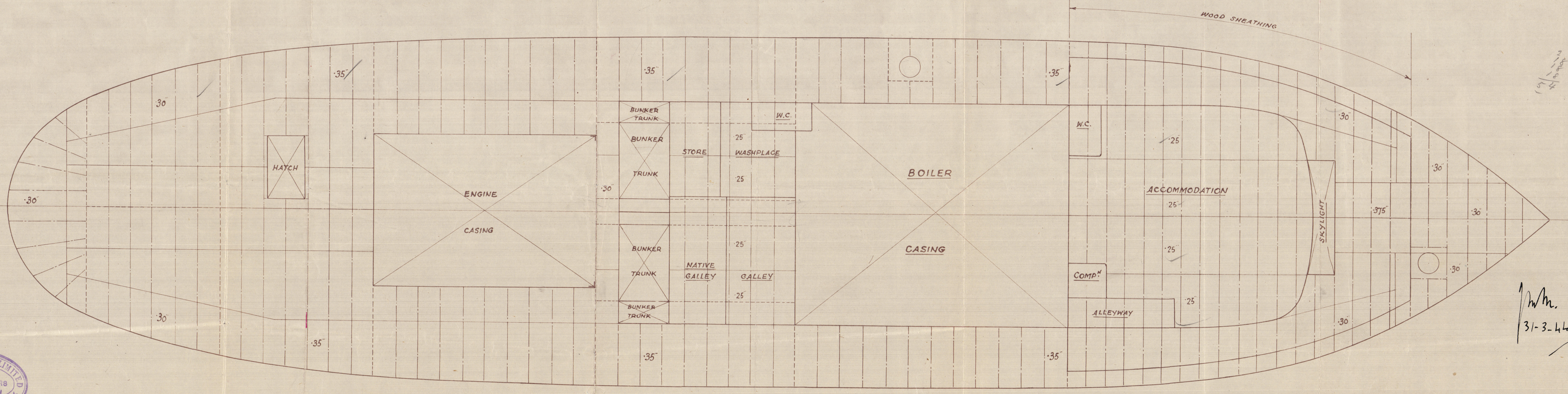
SHIP Nos

1297~8

PILLARING THROUGHOUT TO SURVEYOR'S SATISFACTION.



STEAM CAPSTAN SUPPORTED TO SURVEYOR'S SATISFACTION
HATCH PORT
ENGINE CASING
BUNKER TRUNK
WASHPLACE, STORE & W.C. PORT
2 GALLEYS STARB'D
BOILER CASING
R/T OFFICE
WHEELHOUSE
MAST SUPPORTED TO SURVEYOR'S SATISFACTION
ALLEYWAY & COMPN STARB'D
ACCOMMODATION
SKYL'T
WINDLASS TO BE SUPPORTED TO SURVEYOR'S SATISFACTION
BEAMS 5" × 3" × .30" BULB ANGLE
W.T. DIVISION AT. C.L.
AFTER PEAK
CEMENT
W.T. BH.
RUNNER 5" × 3" × .30" ANGLE
BEAMS 5" × 3" × .30" BULB ANGLE
HOLD
6'-6" BELOW DK @ SIDE
W.T. FLAT
BEAMS 3" × 2½" × .30" ANGLE
W.T. BHD.
6'-6" TO DK. @ SIDE
HALF BEAMS 4" × 3" × .30" ANGLE
BKT
SIDE STRINGER 5" × 4" × .40" ANGLE
BKT
ENGINE ROOM
O.T. FLOOR
O.T. BHD
BEAMS 6" × 3" × .30" ANGLE
BKT
TANK HORIZONTAL GIRDER
OIL BUNKERS ~ 4 TANKS IN WIDTH
OIL TIGHT TUNNEL AT C.L.
O.T. BH.
BKT
BKT
BKT. F.
O.T.F.
HALF BEAMS 4" × 3" × .34" ANGLE
SIDE STRINGER 5" × 4" × .40" ANGLE
BOILER ROOM
BILGE KEELSON 5" × 4" × .50" ANGLE
BKT
6'-9" TO DK. @ SIDE
W.T. BHD.
BEAMS 5" × 3" × .30" BULB ANGLE
RUNNER 5" × 3" × .30" ANGLE
ACCOMMODATION
beams for span of 6'-0"
W.T. FLAT. BEAMS 4" × 3" × .30"
NON W.T. FLAT BEAMS 3" × 2½" × .30" ANGLE
W.T. FLAT. BEAMS 4" × 3" × .30" ANGLE
NON W.T. FLAT BEAMS 3" × 2½" × .30"
BOILER FEED TANKS W.T. CENTRE DIVISION
BKT BKT
5" × 4" × .40" ANGLE
BKT BKT
WATER BALLAST TANKS
W.T. CR. DIVISION
BKT BKT
CHAINS
BKT
W.T. BHD.
8'-6" TO DK. @ SIDE
7'-3" TO DK @ SIDE
BEAMS 5" × 3" × .30" BULB ANGLE
BOSN'S STORE
W.T. FLAT
WASHPLATE
PEAK TANK
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
54
56
58
60
62
64
66
68
21" FRAME SPACING
21½" FRAME SPACING
18" FRAME SPACING
½ LENGTH
½ LENGTH
1² + 1.5 + 1.10
35 + 1.67



WOOD SHEATHING
HATCH
ENGINE CASING
BUNKER TRUNK
BUNKER TRUNK
STORE
WASHPLACE
W.C.
BUNKER TRUNK
NATIVE GALLEY
GALLEY
BUNKER TRUNK
BOILER CASING
W.C.
ACCOMMODATION
SKYLIGHT
COMPN
ALLEYWAY
·35"
·35"
·35"
·35"
·35"
·35"
·30"
·30"
·30"
·30"
·30"
·30"
·30"
·30"
·30"
·25"
·25"
·25"
·25"
·25"
·25"
·25"
·25"
·375"

J.W.M.
31-3-44

COCHRANE & SONS LIMITED
2562
SHIPBUILDERS
25 MAR 1944
SELBY

1

* Taurus *
ex

D/S
470

COCHRANE & SONS
YARD Nos. 1297/8
1299 to 1304

MIDSHIP SECTION

"Empire Flora"

Hul rept No. 53089

009570-009579-0081

MIDSHIP SECTION

115'-0" B.P. × 27'-6" MLD. × 13'-6" MLD.

TO CLASS ✠ 100 A.I. FOR TOWING SERVICES

SCALE: ½" = 1 FOOT

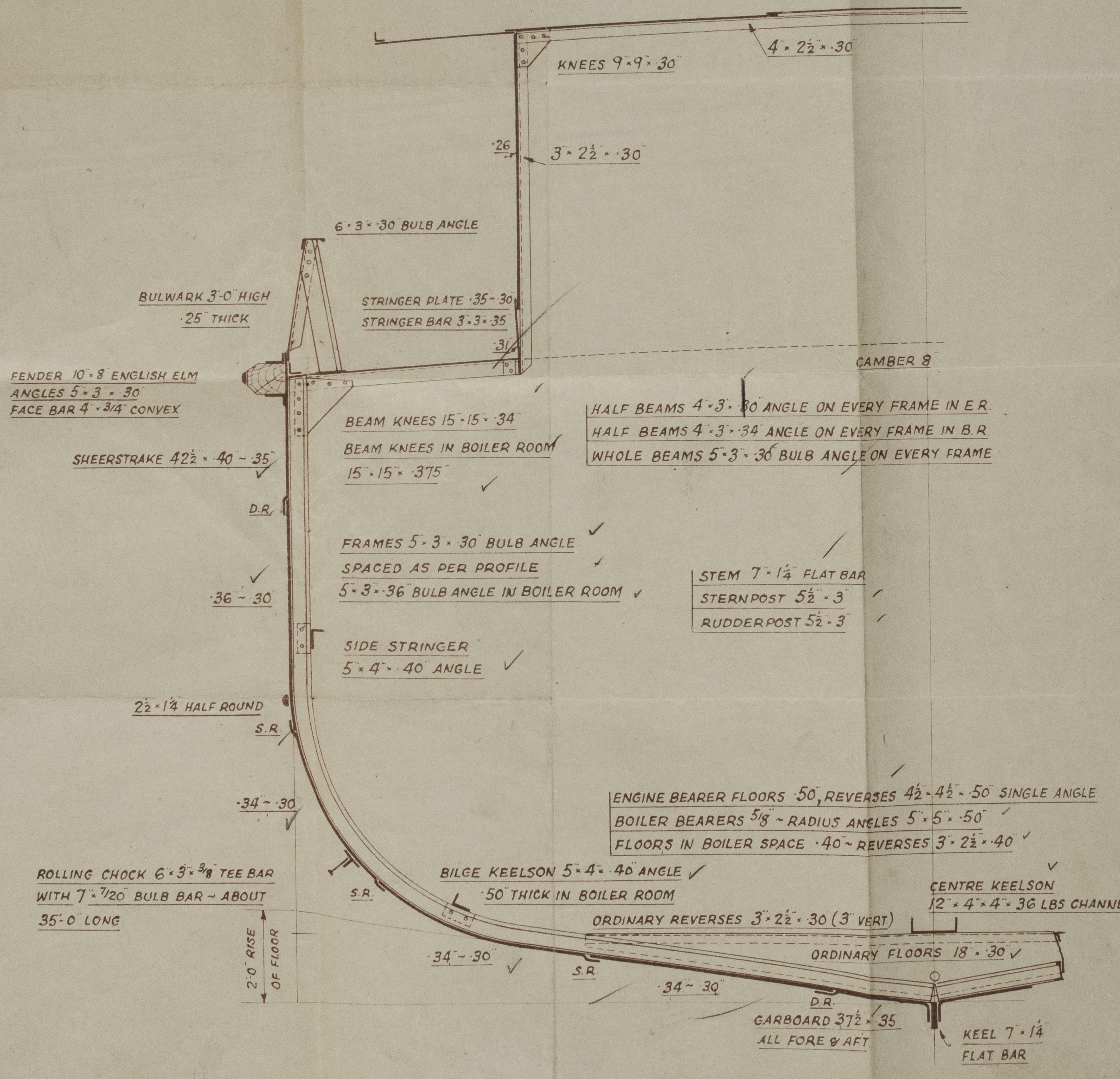
SHIP Nos

1297~8

EQUIPMENT
1ST BOWER ANCHOR 7¼ CWTS. STOCKLESS
2ND BOWER ANCHOR 6½ CWTS. STOCKLESS
~~150~~ 105 FMS. 1 1/16" STUD LINK CABLE
60 FMS. 6" HEMP HAWSER ✓
60 FMS 5" HEMP WARP ✓

[illegible]

NUMERALS	
L × D	1552·5
L × (B + D)	4715
D	13·5
L/D	8·5



4" × 2½" × ·30
KNEES 9" × 9" × ·30
·26
3" × 2½" × ·30
6" × 3" × ·30 BULB ANGLE
BULWARK 3'-0" HIGH
·25" THICK
STRINGER PLATE ·35 ~ ·30
STRINGER BAR 3" × 3" × ·35
·31
CAMBER 8"
FENDER 10" × 8" ENGLISH ELM
ANGLES 5" × 3" × ·30
FACE BAR 4" × 3/4" CONVEX
BEAM KNEES 15" × 15" × ·34
BEAM KNEES IN BOILER ROOM
15" × 15" × ·375
HALF BEAMS 4" × 3" × ·30 ANGLE ON EVERY FRAME IN E.R.
HALF BEAMS 4" × 3" × ·34 ANGLE ON EVERY FRAME IN B.R.
WHOLE BEAMS 5" × 3" × ·36 BULB ANGLE ON EVERY FRAME
SHEERSTRAKE 42½" × ·40 ~ ·35
D.R.
FRAMES 5" × 3" × ·30 BULB ANGLE
SPACED AS PER PROFILE
5" × 3" × ·36 BULB ANGLE IN BOILER ROOM
STEM 7" × 1¼" FLAT BAR
STERNPOST 5½" × 3"
RUDDERPOST 5½" × 3"
·36 ~ ·30
SIDE STRINGER
5" × 4" × ·40 ANGLE
2½" × 1¼" HALF ROUND
S.R.
·34 ~ ·30
ENGINE BEARER FLOORS ·50", REVERSES 4½" × 4½" × ·50" SINGLE ANGLE
BOILER BEARERS 5/8" ~ RADIUS ANGLES 5" × 5" × ·50"
FLOORS IN BOILER SPACE ·40" ~ REVERSES 3" × 2½" × ·40"
ROLLING CHOCK 6" × 3" × 3/8" TEE BAR
WITH 7" × 7/20" BULB BAR ~ ABOUT
35'-0" LONG
S.R.
BILGE KEELSON 5" × 4" × ·40" ANGLE
·50" THICK IN BOILER ROOM
CENTRE KEELSON
12" × 4" × 4" × 36 LBS CHANNEL
ORDINARY REVERSES 3" × 2½" × ·30 (3" VERT.)
ORDINARY FLOORS 18" × ·30
2'-0" RISE OF FLOOR
·34" ~ ·30
S.R.
·34" ~ ·30"
D.R.
GARBOARD 37½" × ·35
ALL FORE & AFT
KEEL 7" × 1¼"
FLAT BAR

14'-9
14'-9
29'-6

31-3-44

COCHRANE & SONS LIMITED
SHIPBUILDERS
2501
25 MAR 1944
SELBY

③

Taurus D/S 470

Hul 53089.

COCHRANE & SONS

YARD Nos. 1297/8, 1299 -
1304

STERNFRAME AND
RUDDER.

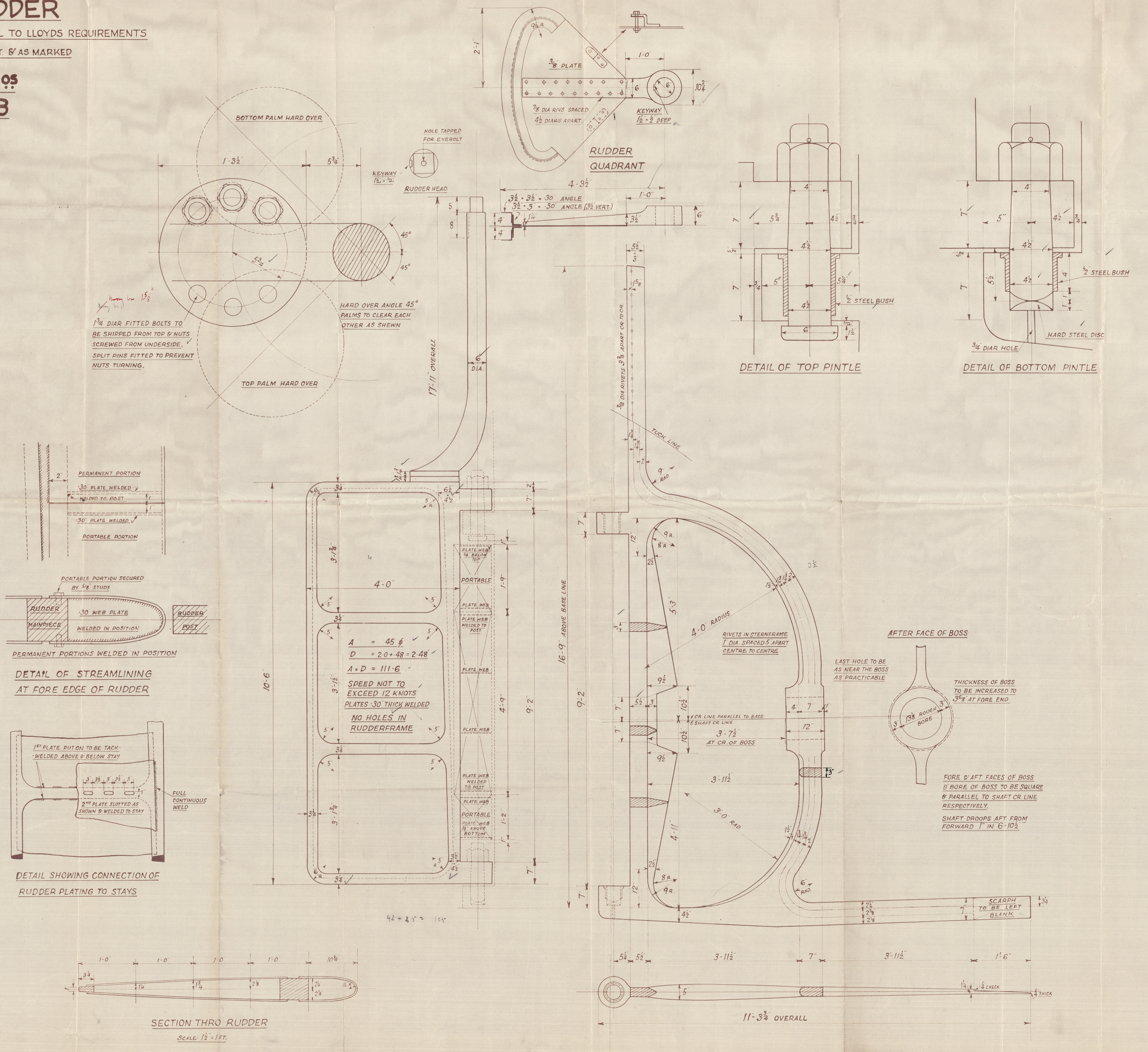
009570 - 009579 - 0080

STERNFRAME
& RUDDER

FORGED STEEL TO LLOYDS REQUIREMENTS

SCALE: 1" = 1 FT. & AS MARKED

SHIP N^os
1297~8


BOTTOM PALM HARD OVER
1'-3½"
5¾"
5¾
45°
45°
TOP PALM HARD OVER
HOLE TAPPED FOR EYEBOLT
KEYWAY 1½" × ½"
RUDDER HEAD
5"
8"
17'-11" OVERALL
6" DIA.
9½" R.
2'-1"
⅜" PLATE
1'-0"
6"
10¾"
6"
KEYWAY 1½" × ½" DEEP
4'-3½"
1'-0"
4"
4"
1¼"
3½"
6"
5½" × 3"
1⅝
¾" DIA RIVETS 3¾" APART CR. TO CR.
TUCK LINE
1¾
1¾
2"
9" RAD.
16'-9" ABOVE BASE LINE
9'-2"
7"
7"
12"
9"R.
8"R.
2½"
5'-3"
4'-0" RADIUS
1½"
1¾
1¾
2
3"
9½"
5½"
3"
10½"
7"
7"
4"
7"
1"
12"
℄ CR. LINE PARALLEL TO BASE
℄ SHAFT CR. LINE
3'-7½" AT CR. OF BOSS
10½"
9½"
3'-11½"
3"
3'-0" RAD.
4'-11"
1½"
1¾
1¾
2"
2½"
12"
8"R.
9R.
6" RAD.
4½"
2½"
2⅜"
2⅛"
7
3¼
5¼"
5½"
3'-11½"
7"
3'-11½"
1'-6"
5"
1¼"
¼" CHECK
¼" THICK
11'-3¾" OVERALL
3"
1⅜" ROUGH BORE
3"
3¾"
6"R.
3¼"
4'-0"
5"
3'-1¾"
3'-1½"
3'-1¾"
3¼"
6½"
4½"
3½"
4½"
5"R.
1¾"
PLATE WEB ¼" BELOW TOP
PORTABLE
PLATE WEB
PLATE WEB WELDED TO POST
PLATE WEB
PLATE WEB
PLATE WEB WELDED TO POST
PLATE WEB
PORTABLE
PLATE WEB ¼" ABOVE BOTTOM
1"
1'-9"
4'-9"
1'-2"
1"
2
7"
9'-2"
7"
10'-6"
4"
5¾"
4½"
¾"
4½"
½"
7"
7"
¾"
5"
5¼"
4½"
½" STEEL BUSH
6"
½"
1½"
4"
7"
5"
4½"
¾"
4½"
½"
7"
5½"
4½"
4"
1"
1"
½" STEEL BUSH
HARD STEEL DISC
¾" DIAR. HOLE
2"
PERMANENT PORTION
·30" PLATE WELDED
WELDED TO POST
1"
1"
·30" PLATE WELDED
PORTABLE PORTION
PORTABLE PORTION SECURED BY ⅝" STUDS
RUDDER MAINPIECE
·30" WEB PLATE WELDED IN POSITION
RUDDER POST
1st PLATE PUT ON TO BE TACK-WELDED ABOVE & BELOW STAY
3" 3½" 3" 3½" 3"
1"
2nd PLATE SLOTTED AS SHOWN & WELDED TO STAY
FULL CONTINUOUS WELD
1'-0" 1'-0" 1'-0" 1'-0" 10¼"
3¼
1¼
1¾
2⅛
2¼
2¼
1½ R

1¾" DIAR FITTED BOLTS TO BE SHIPPED FROM TOP & NUTS SCREWED FROM UNDERSIDE. SPLIT PINS FITTED TO PREVENT NUTS TURNING.

~~May be 1½"~~ May be 1⅝"

HARD OVER ANGLE 45° PALMS TO CLEAR EACH OTHER AS SHEWN

7/8" DIA RIVS SPACED 4½ DIARS APART

RUDDER QUADRANT

3½" × 3½" × ·30" ANGLE

3½" × 3" × ·30" ANGLE (3½" VERT.)

DETAIL OF TOP PINTLE

DETAIL OF BOTTOM PINTLE

PERMANENT PORTIONS WELDED IN POSITION

DETAIL OF STREAMLINING AT FORE EDGE OF RUDDER

DETAIL SHOWING CONNECTION OF RUDDER PLATING TO STAYS

A = 45 ∅

D = 2.0 + .48 = 2.48

A × D = 111.6

SPEED NOT TO EXCEED 12 KNOTS

PLATES ·30" THICK WELDED

NO HOLES IN RUDDERFRAME

42 + 2.5 = 105

RIVETS IN STERNFRAME 1" DIA. SPACED 5" APART CENTRE TO CENTRE

LAST HOLE TO BE AS NEAR THE BOSS AS PRACTICABLE

SCARPH TO BE LEFT BLANK

AFTER FACE OF BOSS

THICKNESS OF BOSS TO BE INCREASED TO 3⅝" AT FORE END

FORE & AFT FACES OF BOSS & BORE OF BOSS TO BE SQUARE & PARALLEL TO SHAFT CR. LINE RESPECTIVELY.

SHAFT DROOPS AFT FROM FORWARD 1" IN 6-10½"

SECTION THRO RUDDER

SCALE: 1½" = 1 FT.

COCHRANE & SONS LIMITED
2566
SHIPBUILDERS
25 MAR 1944
SELBY

31-3-44

009570-009579-0080